

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Macton Corp

Connecticut State Technology Extension Program

Macton Corporation Turns the Table with Lean

Client Profile:

Macton Corporation, located in Oxford, Connecticut, has developed turntables and support structures for a wide range of commercial, institutional and residential installations. Macton provides expertise in all aspects of engineering, fabricating and installing turntable equipment, from revolving restaurants and performing art theaters to car and truck turntables. Some of the company's original projects have been in continuous, smooth operation since the early 1950s. Notable installations include revolving restaurants in New York, Dubai, Toronto and Las Vegas, as well as people-movers at Epcot Center and a seating turntable at the Pro Football Hall of Fame in Ohio. Macton employs 53 people.

Situation:

Macton Corporation's Lean/ISO Manager, Drew Abbott, took on the task of maintaining ISO certification, and sought to build upon his knowledge of Lean processes. Although achieving ISO certification was a significant step in continuous improvement efforts, Drew and the management team knew that additional Lean implementation would create positive change throughout the office and shop floor. They noticed that spare parts orders frequently missed delivery dates and the process tended to unravel in the absence of the process owner. On time delivery was operating at 78 percent, the lead time was longer than customer demand, and inspections often became redundant, with some checks repeated three times or more. They recognized the need to improve on time delivery and create a project plan to implement a company-wide Lean system, beginning with the spare parts orders. Macton called upon the Connecticut State Technology Extension Program (CONNSTEP), a NIST MEP network affiliate, for help.

Solution:

Abbott enrolled in CONNSTEP's Continuous Improvement Champion Certification (CICC) Program, designed to provide comprehensive exposure to the principles and practices of Lean implementation. Bill Caplan, one of CONNSTEP's Lean Specialists, was assigned as Drew's CICC mentor, and took an initial site visit to Macton to help assess the need for improvements. The Macton team chose to focus on improving the flow of information and communication throughout the spare parts process. The team's overarching goal aimed to address three primary issues: problems with inter-departmental communications, inspection, and inventory control to streamline the process from orders to shipment. In beginning the improvement efforts, the Macton team created current and future state Value Stream Maps (VSM) to illustrate present conditions and goal outcomes for the spare parts order process -- with the future map striving to eliminate non-value added activities.

Throughout the duration of the on-site project, Macton personnel in all departments were actively engaged to achieve process improvements. After conducting a root cause analysis, the team established indicators for the current breakdown in communication, which stemmed from changing staff responsibilities and a system that did not provide adequate contact between departments. In assessing changes to the current state, the team recommended that receiving computers integrate full

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

email capability and utilize group emails to communicate between departments.

The team engaged the shop floor staff to reassess their current procedures and travel distance when inspecting spare parts. The team realized the benefits of shifting the inspection responsibility to receiving personnel to streamline the process for all staff members. They also evaluated inventory control on the shop floor, and recognized the need to implement a system to manage spare parts. To eliminate future inventory errors, Kanban signals for common use items were incorporated, and access restrictions on spare parts were imposed to avoid poorly managed inventory in the future. The spare parts continuous improvement project led to successful results on several levels. Abbott was able to effectively apply the skills he developed at CICC to help the Macton team improve on time delivery for spare parts, reduce lead time, and address inventory problems. VSM was a particularly effective tool for jumpstarting the process of streamlining systems and reducing lead time.

Results:

- * Increased on-time delivery from 78 percent to 99 percent.
- * Reduced lead time by 77 percent.
- * Eliminated 338 hours of non-value added activity.
- * Reduced travel time on shop floor by 77 percent.

Testimonial:

"The CONNSTEP CICC Program provided me with the tools to begin our Lean journey and enabled me to train the Macton team to make positive changes with big results."

Drew Abbott, Lean/ISO Manager